firetide®
multi-service mesh networks™

HotPoint™ 4000 Series Wireless Access Points

Firetide HotPoint Wireless Access Points

Firetide HotPoint wireless access points deliver a modular access solution for large scale, indoor and outdoor wireless mesh networks. Modular design enables full network and software integration of the access points with a Firetide wireless mesh network while at the same time permitting independent physical placement of the hardware to provide optimal accessibility for Wi-Fi® clients.

Seamless Outdoor and Indoor Operation

Outdoor HotPoint 4600 access points have rugged NEMA 4X/IP67-rated cast aluminum enclosures and have one weatherproof connector for attaching to a Firetide wireless mesh node or a conventional Ethernet port. These units support high gain antennas and can receive power directly from a connected mesh node eliminating the need for an external power supply.

Indoor HotPoint 4500 access points provide wireless access within buildings and moving vehicles. Each indoor access point has a UL2043 plenum-rated enclosure and an RJ-45 connector for attaching to a Firetide wireless mesh node or a conventional Ethernet port.

HotPoint 4500 Indoor Access Point

HotPoint 4600 Outdoor Access Point

Access On or Off the Mesh

HotPoint wireless access points can be mounted to a Firetide mesh node to provide Wi-Fi access to any indoor or outdoor location without the need for backhaul cabling. HotPoint access points can also connect directly to a conventional wired infrastructure eliminating the need to install a mesh node in locations where wired connectivity is readily available.

Modularity for Flexible Placement

Unlike conventional mesh networks that combine mesh backhaul and Wi-Fi access in the same enclosure, Firetide mesh nodes and access points can be physically separated allowing system integrators to optimize RF separately for both the mesh backhaul as well as client access.

For example, in a multi-building mesh network, mesh nodes should be placed in areas that enable the best connectivity between buildings which is typically at higher locations. However the best locations for the access points tend to be lower to provide the best connectivity for Wi-Fi clients inside a building. Because the access points and mesh nodes are kept in separate enclosures, they can be independently positioned for optimal RF connectivity.

Single-point Network Management for Mesh and Access

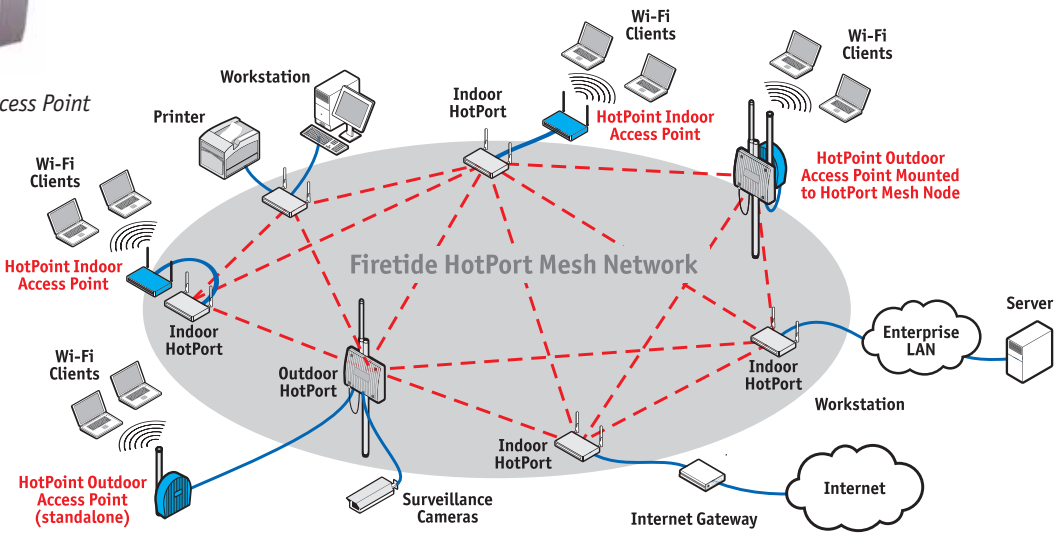
Whether connected directly to a Firetide wireless mesh network or to a wired infrastructure, the HotPoint access points are fully integrated and managed with the same HotView™ software used to manage Firetide mesh nodes. HotView provides remote management from a centralized location and users can manage all mesh and access traffic from a single console.

Advanced Security and Performance Features

HotPoint access points operate in the 2.4 GHz band and feature WPA2 and WEP encryption, up to 16 SSIDs, industry compliant QoS, and durable enclosures. High-power radios with up to 400 mW provide extended reach and outstanding penetration.

Designed for Hot Spots

Layered service levels can be enabled through Virtual APs (VAPs) and Virtual AP Groups. Each HotPoint AP supports up to 16 VAPs, creating different logical networks with varying levels of security, access, and performance. Additional Hot Spot features include user-based rate limiting and intracell blocking.



HotPoint 4000 Series Wireless Access Points

Specifications

Models
- HotPoint 4500-0001 Indoor Access Point
- HotPoint 4600-0001 Outdoor Access Point

Wireless interface
- IEEE 802.11b/g
- Frequency range: 2.400 - 2.484 GHz
- Transmit power up to 400 mW
- Manual Transmit Power Control
- 802.11d (Auto Channel Select)
- Typical RX sensitivity:
  - 2.4 GHz, DSSS
    - 1 Mbps: -96 dBm
    - 11 Mbps: -90 dBm
  - 2.4 GHz, OFDM
    - 6 Mbps: -93 dBm
    - 54 Mbps: -74 dBm
- Media Access Protocol: CSMA/CA with ACK
- Range up to 1000 meters depending on client configuration and environment

Networking
- Up to 16 SSIDs per HotPoint
- Up to 16 independent VLANs
- DHCP client and server, separate DHCP range per SSID
- WDS (Wireless Distribution System)

Security, Authentication and Encryption
- 802.11i, WPA2
- 40 bit, 104 bit WEP keys
- 128 bit, 256 bit AES keys
- 802.1x, RADIUS authentication
- VPN tunneling and filtering
- SSID suppression
- Firewall
- MAC access control
- NAT
- Rogue AP detection

Management and Configuration
- Integrated mesh and access management
- Multiple user interface options:
  - Centralized management via HotView or HotView Pro
  - Built-in web-based management
  - Command line interface (CLI)
- Remote firmware upgrade
- Auto AP discovery
- Physical AP grouping

Hot Spot Services
- Virtual AP Grouping
- User-based rate limiting
- Intercell/intracell blocking

Client Access Features
- Up to 64 concurrent users simultaneously per HotPoint
- Inter Access Point Protocol (IAPP) enabled per 802.11f
- Fast handoff enabled
- 108 Mbps Turbo Mode
- 802.11e (WMM) (Quality of Service)
- Zero user configuration

Network Ports
- One 10/100 autosense Base-T port
- IEEE 802.3,802.3u compliant

HotPoint Management Software
- HotView™ mesh management software (bundled)
- HotView Pro™ mesh management software (optional)

Regulatory Agency Certifications
- FCC Part 15
- CE

Warranty
- One year limited warranty
- One year optional warranty extension available

Outdoor Model

Enclosure
- System indicator LEDs (power, status, access)
- Antenna connector: N female (quantity 2)
- IP67-rated power connector
- IP67-rated Ethernet data connector
- Mounting bracket kit for polemount or wall attachment
- Weight: 4.8 lbs (2.2 Kg) without external power supply
- Dimensions: 11.00 in x 8.50 in x 2.00 in (27.9 cm x 21.6 cm x 5.1 cm)
- NEMA 4X/IP67

Power
- Input voltage: 12-18 VDC via external power supply (16 VDC nominal) or PD/POE capable on Ethernet data connector
- External power supply: 100-240 VAC, 50/60 Hz
- Power consumption: 9-11 W, depending on configuration

Antennas and Cable Assemblies (Not Included)
- 7.4 dBi omni directional antenna
- 8.0 dBi omni directional antenna
- 1.5 m LMR400 cable with low loss lightening suppressor
- 5 m LMR400 cable with low loss lightening suppressor

Environmental Specifications
- Operating temperature: -20° C to +55° C (-4° F to +131° F)
- Storage temperature: -40° C to +70° C (-40° F to +158° F)
- Humidity (non-condensing): 10% to 90%
- Storage humidity (non-condensing): 10% to 90%

Indoor Model

Enclosure
- System indicator LEDs (power, status, access)
- Ethernet indicator LED (activity)
- Antenna connector: SMA reverse polarity female (quantity 2)
- Power connector (2.1 mm, center positive)
- Ethernet data connector (RJ-45)
- Reset button (recessed)
- Security slot for physical locking device
- Weight: 2.2 lbs (1.0 Kg) without external power supply
- Dimensions: 9.00 in x 5.84 in x 1.10 in (22.9 cm x 14.8 cm x 2.8 cm)
- UL2043 Plenum-rated

Power
- Input voltage: 5 VDC via external power supply
- External power supply: 100-240 VAC, 50/60 Hz
- Power consumption: 8-10 W, depending on configuration

Antennas (Included)
- Two 2.4 GHz antennas provided with each unit
- Pattern: Omni directional, vertical polarization
- Connectors: SMA, reverse polarity
- Length: 6.25 in. (15.5 cm)
- Gain: up to 5 dBi

Optional Accessories
- Mounting kit for secure wall, ceiling, tabletop, or cubicle installation

Environmental Specifications
- Operating temperature: 0° C to +50° C (32° F to +122° F)
- Storage temperature: -20° C to +70° C (-4° F to +158° F)
- Humidity (non-condensing): 10% to 90%
- Storage humidity (non-condensing): 10% to 90%

Firetide Mesh Products

HotPort Outdoor Mesh Nodes

HotPort Indoor Mesh Nodes

HotPort 4.9 GHz Public Safety Network

HotView™ and HotView Pro™ Mesh Management Software

firetide®
multi-service mesh networks™

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